

AMENDMENTS

Please amend this application as follows.

In the Specification

As a new paragraph before the heading "Field of the Invention" and paragraph [0001}, please insert:

Cross-Reference to Related Applications

This application is a continuation-in-part of copending, commonly assigned U.S. Application No. 10/603,514, filed June 24, 2003, and is the national stage of International Application No. PCT/US2004/016908, filed May 26, 2004, the disclosures of which are incorporated herein by reference.

Please replace paragraph [00020] with the following amended paragraph:

[00020] In accordance with a second aspect of the present invention, a touch display is provided. The touch display comprises a display device, e.g., a cathode ray tube (CRT), liquid crystal display (LCD), plasma, electroluminescent, vacuum fluorescent display (VFD), field emission display (FED), or other type of display. The touch display further comprises an acoustic touchscreen whose substrate is the front surface of the display device, an acoustic transducer, and an acoustically diffractive grating disposed between the substrate and the transducer. As previously described, the diffractive grating is configured to couple acoustic energy within the acoustic transducer to an acoustic wave propagating along the surface of the substrate. The diffractive grating, transducer, and substrate can include features similar to those previously described above. Notably, the low profile of the combined transducer and grating itself is well suited to display devices with flat integrated acoustic substrates that have very little space between the substrate and bezel.

Please replace paragraph [00059] with the following amended paragraph:

[00059] Fig. 7 illustrates a grating 185a that comprises a metal foil 195 through which a negative pattern of the perturbation elements 190 is etched to form alternating tines 200 (perturbation elements) and slots 205. For purposes of manufacturing efficiency, multiple sets of perturbation patterns can be etched into larger foil sheets, which can then be cut into smaller foils, each of which comprises a single perturbation pattern. The preferred thickness

of the metal foil 195 is between 0.050 .050 and 0.075 .075 mm. Assuming a surface wave velocity of the horizontally propagating acoustic wave through the substrate 120 (composed of glass) of 3.16 mm/ μ s and a frequency of 5.53 MHz., the relevant acoustic wavelength will be 0.571 mm. Accordingly, each tine 200 should be 0.286 mm wide, and each slot 205 should also be 0.286 mm wide in order to provide the grating 185(a) with a 0.571 mm pitch (i.e., 0.571 mm between the centers of adjacent tines 200).